

**Legislators' Retirement System  
Actuarial Valuation  
as of  
June 30, 2010**

**Establishing Required Contributions  
for the Fiscal Year  
July 1, 2011 through June 30, 2012**

## Table of Contents

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|   |     |
|---|-----|
| Actuarial Certification .....   | 1   |
| Highlights & Executive Summary .....                                  | 2   |
| Purpose of the Report.....  | 3   |
| Actuarially Required Employer Contribution Rate .....                 | 4   |
| Three Year History of Liabilities and Assets.....                     | 4   |
| Changes Since Prior Valuation .....                                   | 4   |
| Summary of Liabilities & Required Contribution Rate.....              | 5   |
| Comparison of Current and Prior Year Results.....                     | 6   |
| Development of the Actuarial Required Employer Contribution Rate..... | 7   |
| Summary of Assets .....   | 8   |
| Reconciliation of Market Value of Assets .....                        | 9   |
| Development of the Actuarial Value of Assets.....                     | 10  |
| Asset Allocation.....   | 11  |
| Asset Allocation Chart.....   | 112 |
| Summary of Participant Data.....                                      | 113 |
| Reconciliation of Participants .....                                  | 14  |
| Distribution of Active Participants .....                             | 15  |
| Distribution of Average Annual Salaries.....                          | 16  |
| Distribution of Vested Terminated Participants .....                  | 17  |
| Summary of Retirees & Beneficiaries .....                             | 18  |
| Distribution of Retirees & Beneficiaries.....                         | 19  |
| Distribution of Retirees & Beneficiaries.....                         | 20  |
| Distribution of Retirees & Beneficiaries.....                         | 21  |
| Distribution of Retirees & Beneficiaries.....                         | 22  |
| Appendix A - Actuarial Assumptions and Methods .....                  | A-1 |
| Appendix B - Summary of Principal Plan Provisions .....               | B-1 |
| Appendix C – GASB Statement No. 27.....                               | C-1 |
| Appendix D – Investment Return Sensitivity Analysis .....             | D-1 |
| Appendix E – Glossary of Actuarial Terms.....                         | E-1 |

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## Actuarial Certification

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**Certification** To the best of our knowledge, this report is complete and accurate and contains sufficient information to fully and fairly disclose the actuarial funded condition of the Legislators' Retirement System. Based on the employee data provided by the CalPERS Judges', Legislators' and Volunteer Firefighters' Office, the statement of assets provided by the CalPERS Fiscal Services Division, and the benefits as outlined in Appendix B, it is our opinion that the valuation has been performed in accordance with generally accepted actuarial principles and that the assumptions and methods are reasonable for the System.



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# Highlights and Executive Summary

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## Contents

This section contains the following topics:

| <b>Topic</b>                                    | <b>See Page</b> |
|---|-----------------|
| Purpose of the Report                           | 3               |
| Actuarially Required Employer Contribution Rate | 4               |
| Three-Year History of Liabilities and Assets    | 4               |
| Changes Since Prior Valuation                   | 4               |

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## Highlights & Executive Summary

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### **Purpose of the Report**

This actuarial valuation of the Legislators' Retirement System was performed by the CalPERS Actuarial Office using data as of June 30, 2010 in order to:

- establish the actuarially required contributions of the System for the fiscal year July 1, 2011 through June 30, 2012;
- disclose the funded status of the System;
- set forth the actuarial assets and funding liabilities of this plan as of June 30, 2010;
- measure the financial security of the System;
- provide actuarial information as of June 30, 2010 to the CalPERS Board of Administration and other interested parties.

Use of this report for other purposes may be inappropriate.

In preparing this actuarial valuation, the CalPERS Actuarial Office relies upon information provided by CalPERS' Fiscal Services Division and the CalPERS Judges' and Legislators' Office. Asset figures provided in this report includes accounts receivable. The CalPERS Actuarial Office assumes that all assets are accruing interest at the actuarially assumed rate.

Effective December 7, 2009, elected officials salaries were reduced 18%. For the purposes of determining the present value of benefits, salaries prior to the reduction were used. Actual salaries were used to calculate employer contribution rates.

In accordance with the Political Reform Act of 1990 (Proposition 140), Senators and Members of the Assembly first elected after November 7, 1990 participate in the Federal Social Security program and in no other retirement system. Therefore, the only members currently able to enter the system are Constitutional Officers and Legislative Statutory Officers.

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**Actuarially  
Required  
Employer  
Contribution  
Rate**

The actuarially required employer contribution rate for the fiscal year July 1, 2011 through June 30, 2012 is 0%.

The Legislators' Retirement System is superfunded for fiscal year June 30, 2011 to June 30, 2012. By definition, "superfunded" is when the plan's actuarial value of assets exceeds the present value of future benefits for current members.

**Three-Year  
History of  
Liabilities and  
Assets**

Shown below is a three year history of the Present Value of Benefits and Actuarial Value of Assets.

| <u>Valuation Date</u> | <u>Present Value of<br/>Benefits</u> | <u>Actuarial Value of<br/>Assets</u> |
|-----------------------|--------------------------------------|--------------------------------------|
| June 30, 2010         | \$115,950,719                        | \$126,641,553                        |
| June 30, 2009         | \$115,640,047                        | \$134,195,015                        |
| June 30, 2008         | \$107,132,419                        | \$142,350,628                        |

**Changes Since  
Prior Valuation**

**Actuarial Methods** – No changes were made since the prior valuation.

**Actuarial Assumptions and Data** – The investment rate of return assumption was reduced from 7% to 6%.

**Plan Provisions** - No changes were made since the prior valuation.

**Significant Events** - A court case involving past due payments totaling \$7,696,227 (including interest) was finalized on March 11, 2010.

**Subsequent Events** – A general election was held in November 2010. There were five new officials elected into office for the first time. One official was elected into a different office. Five officials were not re-elected.

# **Summary of Liabilities And Required Employer Contribution Rate**

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## **Contents**

This section contains the following topics:

| <b>Topic</b>   | <b>See Page</b> |
|--|-----------------|
| Comparison of Current and Prior Year Results                   | 6               |
| Development of Actuarially Required Employer Contribution Rate | 7               |

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## Comparison of Current and Prior Year Results

**Comparison of Current and Prior Year Results**      Shown below is the comparison of key valuation results for the current valuation date to the corresponding values from the prior valuation date.

|   |    | <u>June 30, 2009</u> | <u>June 30, 2010</u><br><u>Under Old</u><br><u>Assumptions</u> | <u>June 30, 2010</u><br><u>Under New</u><br><u>Assumptions</u> |
|---|----|----------------------|--|--|
| <b>Members Included in the Valuation</b>            |    |                      |  |  |
| Active Members                                      |    | 13                   | 14   | 14   |
| Vested Inactive Members                             |    | 26                   | 24   | 24   |
| Receiving Benefits                                  |    | <u>270</u>           | <u>266</u>   | <u>266</u>   |
| <b>Total</b>  |    | 309                  | 304  | 304  |
| <b>Covered Payroll Prior Fiscal Year</b>            | \$ | 2,057,335            | 2,159,181  | 2,159,181  |
| <b>Projected Covered Annual Payroll<sup>1</sup></b> | \$ | 1,995,119            | 2,015,961  | 2,015,445  |
| <b>Average Annual Pay</b>                           | \$ | 158,257              | 154,227  | 154,227  |
| <b>Present Value of Benefits at Valuation Date</b>  |    |                      |  |  |
| Active and Vested Inactive Members                  | \$ | 19,957,800           | 19,319,732   | 21,976,157   |
| Receiving Benefits                                  |    | <u>95,682,247</u>    | <u>85,276,775</u>  | <u>93,974,562</u>  |
| <b>Total</b>  | \$ | 115,640,047          | 104,596,507  | 115,950,719  |
| <b>Market Value of Assets</b>                       | \$ | 111,829,179          | 114,104,852  | 114,104,852  |
| <b>Actuarial Value of Assets</b>                    | \$ | 134,195,015          | 126,641,553  | 126,641,553  |
| <b>Contributions in Dollars</b>                     | \$ | 0                    | 0  | 0  |

<sup>1</sup> Payroll prior to the December 7, 2009 reduction was used to determine the present value of benefits



## Development of Actuarially Required Employer Contribution Rate

**Development of the Actuarial Required Employer Contribution Rate**      Shown below is the development of the required employer contributions for 2011-2012.

|  |    | <u>Under Old<br/>Assumptions<br/>(7% Discount<br/>Rate)</u> | <u>Under New<br/>Assumptions<br/>(6% Discount<br/>Rate)</u> |
|--|----|---|---|
| 1. Present Value of Benefits as of the Valuation Date  |    |   |   |
| a. Active Members  | \$ | 10,639,680  | 12,277,685  |
| b. Vested Inactive Members   |    | 8,680,052   | 9,698,472   |
| c. Receiving Benefits  |    | <u>85,276,775</u>   | <u>93,974,562</u>   |
| d. Total   | \$ | 104,596,507   | 115,950,719   |
| 2. Actuarial Value of Assets as of the Valuation Date  | \$ | 126,641,553   | 126,641,553   |
| 3. Present Value of Total Required Contributions<br>[(1) – (2), but not less than zero]          | \$ | 0   | 0   |
| 4. Amortization Factor <sup>2</sup>  |    | 13.27767  | 14.590721   |
| 5. Total Required Contributions for<br>Fiscal Year 2011-2012 $[(1+i) \times (3) / (4)]^3$        | \$ | 0   | 0   |
| 6. Expected Employee Contributions for<br>Fiscal Year 2011-2012                                  | \$ | 0   | 0   |
| 7. Required Employer Contributions for<br>Fiscal Year 2011-2012 [(5) – (6)], but not less than 0 | \$ | 0   | 0   |
| 8. Projected Covered Annual Payroll <sup>4</sup>   | \$ | 1,797,809   | 1,797,809   |
| 9. Required Employer Contribution Rate [(7)/(8)]   |    | 0%  | 0%  |

<sup>2</sup> The amortization factor is the present value of a \$1 payment, per year, for 30 years. Since the plan has assets in excess of the present value of benefits, the resulting required employer contribution will be zero regardless of the amortization factor used.

<sup>3</sup> i is the investment return assumption.

<sup>4</sup> Payroll after the December 7, 2009 reduction was used to determine the employer contribution rate.

## Summary of Assets

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### Contents

This section contains the following topics:

| <b>Topic</b>                                 | <b>See Page</b> |
|--|-----------------|
| Reconciliation of Market Value of Assets     | 9               |
| Development of the Actuarial Value of Assets | 10              |
| Asset Allocation                             | 11              |
| Asset Allocation Chart                       | 12              |

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## Summary of Assets

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**Reconciliation of Market Value of Assets**      The table below illustrates a reconciliation of the market value of assets between year ending 2009 and 2010.

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### Reconciliation of Assets (Market Value) As of June 30, 2010

|                                       | <u><b>Market Value</b></u> |
|---------------------------------------|----------------------------|
| Beginning Balance as of June 30, 2009 | \$ 111,829,179             |
| Contributions                         |                            |
| Member Contributions                  | 0                          |
| Employer Contributions                | 0                          |
| Disbursements and Refunds             | (7,520,858)                |
| Administrative Expenses               | (299,391)                  |
| Other Expenses or Credits             | (7,697,451)                |
| Investment Earnings                   | 17,793,373                 |
| Ending Balance as of June 30, 2010    | \$ 114,104,852             |

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**Development of the Actuarial Value of Assets**     The development of the Actuarial Value of Assets for the current valuation date is shown below. This is the amount of asset used in the determination of the contribution rate.

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**Development of the Actuarial Value of Assets  
June 30, 2010**

|  |                    |
|--|--------------------|
| 1. Actuarial Value of Assets as of June 30, 2009   | 134,195,015        |
| 2. Contributions Received  |                    |
| Member Contributions   | 0                  |
| State Contributions  | <u>0</u>           |
| Total Additions  | 0                  |
| 3. Deductions  |                    |
| Benefit Payments and Refunds   | (7,520,858)        |
| Administrative Expenses  | (299,391)          |
| Other  | <u>(7,697,451)</u> |
| Total Deductions   | (15,517,700)       |
| 4. Total Additions Minus Total Deductions  | (15,517,700)       |
| 5. Expected Investment Return $[(1) \times .0700 + (4) \times (1.0700^{\frac{1}{2}} - 1)]$   | 8,859,717          |
| 6. Expected Actuarial Value of Assets as of June 30, 2010 $[(1) + (4) + (5)]$  | 127,537,032        |
| 7. Market Value of Assets as of June 30, 2010  | 114,104,852        |
| 8. One-Fifteenth of the Difference Between Market Value of Assets and Expected Actuarial Value of Assets $[(7) - (6)] \times 1/15$ | (895,479)          |
| 9. Preliminary Actuarial Value of Assets $[(6) + (8)]$   | 126,641,553        |
| 10. Ratio of Preliminary Actuarial Value of Assets over Market Value of Assets $[(9) / (7)]$                                       | 111.0%             |
| 11. Final Actuarial Value of Assets as of June 30, 2010<br>Minimum of $[(9), 120\% \text{ of } (7)]$                               | 126,641,553        |
| 12. Final AVA to MVA ratio $[(11)/(7)]$  | 111.0%             |

**Asset  
Allocation**

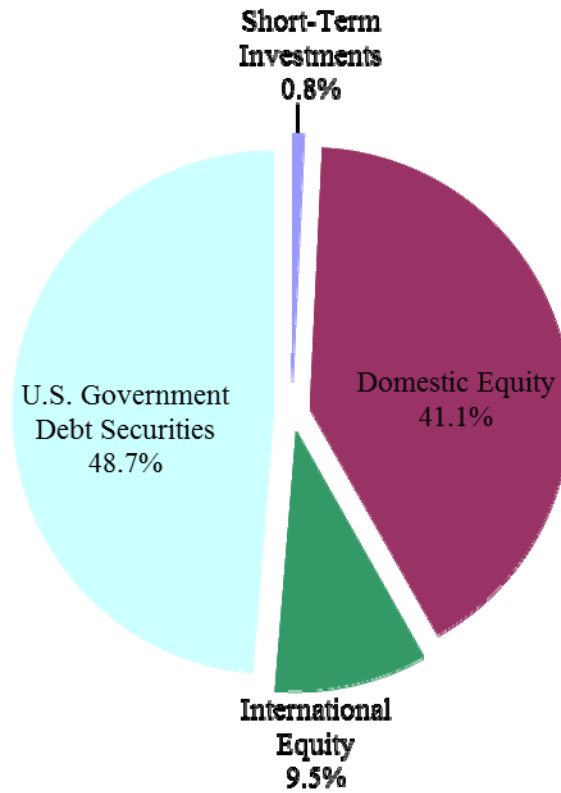
The table below illustrates the asset allocation and market value of assets by asset type.

**Asset Allocation  
As of June 30, 2010  
(Dollars in Thousands)**

|                                 |    |               |
|---------------------------------|----|---------------|
| Investments at Market Value     |    |               |
| General Cash                    | \$ | 869           |
| Short Term Investments          |    | 1             |
| Equity Securities               |    |               |
| Domestic                        |    | 47,390        |
| International                   |    | 10,933        |
| U.S. Government Debt Securities |    | <u>56,217</u> |
| Subtotal                        | \$ | 114,540       |
|                                 |    |               |
| Accounts Receivable             | \$ | 176           |
|                                 |    |               |
| Accounts Payable                | \$ | (1,481)       |
|                                 |    |               |
| Market Value of Funds           | \$ | 114,105       |

**Asset  
Allocation  
Chart**

This is the graphical representation of how the money contained in the Legislators' Retirement Fund is allocated for investment.



## Summary of Participant Data

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### Contents

This section contains the following topics:

| <b>Topic</b>  | <b>See Page</b> |
|---|-----------------|
| Reconciliation of Participants  | 14              |
| Distribution of Active Participants by Age and Service                                | 15              |
| Distribution of Average Annual Salaries by Age and Service                            | 16              |
| Distribution of Vested Terminated Participants by Age and Service                     | 17              |
| Summary of Retirees and Beneficiaries   | 18              |
| Distribution of Retirees and Beneficiaries by Age and Retirement Type (counts only)   | 19              |
| Distribution of Retirees and Beneficiaries by Age and Retirement Type                 | 20              |
| Distribution of Retirees and Beneficiaries by Years and Retirement Type (counts only) | 21              |
| Distribution of Retirees and Beneficiaries by Years and Retirement Type               | 22              |

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## Summary of Participant Data

**Reconciliation of Participants**     The table below illustrates the change in members from June 30, 2009 to June 30, 2010.

### Reconciliation of Participants For the Fiscal Year Ending June 30, 2010

|                              | Actives   | Inactive  | Retirees<br>and<br>Beneficiaries | Total      |
|------------------------------|-----------|-----------|----------------------------------|------------|
| <b>As of June 30, 2009</b>   | 13        | 26        | 270                              | 309        |
| 1. New Entrants              | 2         | 0         | 0                                | 2          |
| 2. Rehires                   | 0         | 0         | 0                                | 0          |
| 3. Refunds                   | 0         | (1)       | 0                                | (1)        |
| 4. Retirements               | 0         | (2)       | 2                                | 0          |
| 5. Disabilities              | 0         | 0         | 0                                | 0          |
| 6. Vested Terminations       | (1)       | 1         | 0                                | 0          |
| 7. Community Property Splits | 0         | 0         | 0                                | 0          |
| 8. Death with Beneficiary    | 0         | 0         | (4)                              | (4)        |
| 9. Death without Beneficiary | 0         | 0         | (2)                              | (2)        |
| <b>As of June 30, 2010</b>   | <b>14</b> | <b>24</b> | <b>266</b>                       | <b>304</b> |



**Distribution of  
Active  
Participants**

The table below illustrates a distribution of active member counts based on age and service.

Counts of members included in the valuation are counts of the records processed by the valuation. Multiple records may exist for those who have service in more than one valuation group. This does not result in double counting of liabilities.

**Distribution of Active Participants  
Attained Age and Years of Credited Service  
As of June 30, 2010**

| <b>Attained<br/>Age</b> | <b>--Years of Service at Valuation Date--</b> |            |              |              |              |              |            | <b>Total</b> | <b>Valuation<br/>Salary</b> |
|-------------------------|---|------------|--------------|--------------|--------------|--------------|------------|--------------|-----------------------------|
|                         | <b>0-4</b>                                    | <b>5-9</b> | <b>10-14</b> | <b>15-19</b> | <b>20-24</b> | <b>25-29</b> | <b>30+</b> |              |                             |
| 15-19                   | 0   | 0          | 0            | 0            | 0            | 0            | 0          | 0            | \$ 0                        |
| 20-24                   | 0   | 0          | 0            | 0            | 0            | 0            | 0          | 0            | 0                           |
| 25-29                   | 0   | 0          | 0            | 0            | 0            | 0            | 0          | 0            | 0                           |
| 30-34                   | 0   | 0          | 0            | 0            | 0            | 0            | 0          | 0            | 0                           |
| 35-39                   | 0   | 0          | 0            | 0            | 0            | 0            | 0          | 0            | 0                           |
| 40-44                   | 1   | 0          | 0            | 0            | 0            | 0            | 0          | 1            | 130,490                     |
| 45-49                   | 0   | 0          | 1            | 0            | 0            | 0            | 0          | 1            | 169,743                     |
| 50-54                   | 3   | 0          | 1            | 0            | 0            | 0            | 0          | 4            | 595,519                     |
| 55-59                   | 2   | 0          | 0            | 0            | 0            | 1            | 0          | 3            | 485,224                     |
| 60-64                   | 0   | 0          | 1            | 1            | 0            | 0            | 1          | 3            | 477,696                     |
| 65+                     | 1   | 0          | 0            | 1            | 0            | 0            | 0          | 2            | 300,509                     |
| <b>Total</b>            | <b>7</b>                                      | <b>0</b>   | <b>3</b>     | <b>2</b>     | <b>0</b>     | <b>1</b>     | <b>1</b>   | <b>14</b>    | <b>2,159,181</b>            |

**Distribution of Average Annual Salaries**     The table below illustrates a distribution of active member salaries based on age and service.

**Distribution of Average Annual Salaries by Age and Credited Service  
As of June 30, 2010**

| <b>Attained<br/>Age</b> | <b>--Years of Service at Valuation Date--</b> |             |                   |                   |              |                   |                   | <b>Average<br/>Salary</b> |
|-------------------------|---|-------------|-------------------|-------------------|--------------|-------------------|-------------------|---------------------------|
|                         | <b>0-4</b>                                    | <b>5-9</b>  | <b>10-14</b>      | <b>15-19</b>      | <b>20-24</b> | <b>25-29</b>      | <b>30+</b>        |                           |
| 15-19                   | \$ 0  | \$ 0        | \$ 0              | \$ 0              | \$ 0         | \$ 0              | \$ 0              | \$ 0                      |
| 20-24                   | 0   | 0           | 0                 | 0                 | 0            | 0                 | 0                 | 0                         |
| 25-29                   | 0   | 0           | 0                 | 0                 | 0            | 0                 | 0                 | 0                         |
| 30-34                   | 0   | 0           | 0                 | 0                 | 0            | 0                 | 0                 | 0                         |
| 35-39                   | 0   | 0           | 0                 | 0                 | 0            | 0                 | 0                 | 0                         |
| 40-44                   | 130,490                                       | 0           | 0                 | 0                 | 0            | 0                 | 0                 | 130,490                   |
| 45-49                   | 0   | 0           | 169,743           | 0                 | 0            | 0                 | 0                 | 169,743                   |
| 50-54                   | 153,122                                       | 0           | 136,152           | 0                 | 0            | 0                 | 0                 | 148,880                   |
| 55-59                   | 159,134                                       | 0           | 0                 | 0                 | 0            | 166,956           | 0                 | 161,741                   |
| 60-64                   | 0   | 0           | 205,584           | 116,208           | 0            | 0                 | 155,904           | 159,232                   |
| 65+                     | 116,208                                       | 0           | 0                 | 184,301           | 0            | 0                 | 0                 | 150,255                   |
| <b>All Ages</b>         | <b>\$ 146,333</b>                             | <b>\$ 0</b> | <b>\$ 170,493</b> | <b>\$ 150,255</b> | <b>\$ 0</b>  | <b>\$ 166,956</b> | <b>\$ 155,904</b> | <b>\$ 154,227</b>         |

**Distribution of  
Vested  
Terminated  
Participants**

The table below illustrates a distribution of inactive member counts based on age and service

Counts of members included in the valuation are counts of the records processed by the valuation. Multiple records may exist for those who have service in more than one valuation group. This does not result in double counting of liabilities.

**Distribution of Vested Inactive  
Terminated by Age and Service  
As of June 30, 2010**

| Attained<br>Age | --Years of Service at Valuation Date-- |          |          |          |          |          |          | Total     | Average<br>Salary |
|-----------------|--|----------|----------|----------|----------|----------|----------|-----------|-------------------|
|                 | 0-4                                    | 5-9      | 10-14    | 15-19    | 20-24    | 25-29    | 30+      |           |                   |
| 15-19           | 0                                      | 0        | 0        | 0        | 0        | 0        | 0        | 0         | \$ 0              |
| 20-24           | 0                                      | 0        | 0        | 0        | 0        | 0        | 0        | 0         | 0                 |
| 25-29           | 0                                      | 0        | 0        | 0        | 0        | 0        | 0        | 0         | 0                 |
| 30-34           | 0                                      | 0        | 0        | 0        | 0        | 0        | 0        | 0         | 0                 |
| 35-39           | 0                                      | 0        | 0        | 0        | 0        | 0        | 0        | 0         | 0                 |
| 40-44           | 0                                      | 0        | 0        | 0        | 0        | 0        | 0        | 0         | 0                 |
| 45-49           | 0                                      | 0        | 0        | 0        | 1        | 0        | 0        | 1         | 99,000            |
| 50-54           | 0                                      | 1        | 1        | 1        | 0        | 0        | 0        | 3         | 111,900           |
| 55-59           | 1                                      | 0        | 2        | 2        | 2        | 1        | 0        | 8         | 123,462           |
| 60-64           | 0                                      | 0        | 0        | 1        | 2        | 0        | 3        | 6         | 80,790            |
| 65+             | 0                                      | 0        | 0        | 0        | 0        | 1        | 5        | 6         | 55,347            |
| <b>Total</b>    | <b>1</b>                               | <b>1</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>2</b> | <b>8</b> | <b>24</b> | <b>\$ 93,301</b>  |

**Summary of  
Retirees &  
Beneficiaries**

The table below illustrates a summary of Retiree and Beneficiary counts and benefits by year of retirement.

**Summary of Retirees and Beneficiaries  
Number Counts and Benefits  
By Year of Retirement  
As of June 30, 2010**

| Year Retired   | Total Retirees | Total Benefits      | Average Benefits |
|----------------|----------------|---------------------|------------------|
| 2010           | 2              | \$ 19,255           | \$ 9,628         |
| 2009           | 4              | 89,922              | 22,481           |
| 2008           | 2              | 157,919             | 78,960           |
| 2007           | 2              | 73,416              | 36,708           |
| 2006           | 4              | 294,500             | 73,625           |
| 2005           | 4              | 50,084              | 12,521           |
| 2004           | 6              | 354,289             | 59,048           |
| 2003           | 3              | 34,291              | 11,430           |
| 2002           | 9              | 480,719             | 53,413           |
| 2001           | 4              | 105,116             | 26,279           |
| 2000           | 7              | 468,264             | 66,895           |
| 1999           | 4              | 155,846             | 38,962           |
| 1998           | 10             | 131,562             | 13,156           |
| 1997           | 5              | 122,341             | 24,468           |
| 1996           | 22             | 960,129             | 43,642           |
| 1995           | 4              | 206,856             | 51,714           |
| 1994           | 11             | 336,227             | 30,566           |
| 1993           | 3              | 75,319              | 25,106           |
| 1992           | 14             | 418,460             | 29,890           |
| 1991           | 8              | 403,634             | 50,454           |
| 1990           | 6              | 179,168             | 29,861           |
| 1989           | 7              | 107,495             | 15,356           |
| 1988           | 3              | 76,335              | 25,445           |
| 1987           | 7              | 339,217             | 48,460           |
| 1986           | 7              | 182,430             | 26,061           |
| 1985           | 3              | 40,479              | 13,493           |
| 1984           | 12             | 181,628             | 15,136           |
| 1983           | 1              | 20,656              | 20,656           |
| 1982           | 13             | 213,379             | 16,414           |
| 1981           | 5              | 76,321              | 15,264           |
| 1980           | 12             | 169,165             | 14,097           |
| 1979           | 17             | 88,368              | 5,198            |
| 1978           | 1              | 37,937              | 37,937           |
| 1977           | 3              | 94,548              | 31,516           |
| 1976           | 9              | 254,095             | 28,233           |
| 1975           | 7              | 178,538             | 25,505           |
| 1974 & Earlier | 25             | 678,445             | 27,138           |
| <b>Totals</b>  | <b>266</b>     | <b>\$ 7,856,353</b> | <b>\$ 29,535</b> |

**Distribution of Retirees & Beneficiaries**

The table below illustrates a distribution of Retiree and Beneficiary counts by age and retirement type.

**Distribution of Retirees and Beneficiaries  
By Age and Retirement Type (counts only)  
As of June 30, 2010**

Type of Retirement Benefit

| Retiree Age  | Service Retiree | Disability Retiree |            | Death In Service |            | Death After Service Retirement | Total      |
|--------------|-----------------|--------------------|------------|------------------|------------|--------------------------------|------------|
|              |                 | Non-industrial     | Industrial | Non-industrial   | Industrial |                                |            |
| Under 30     | 6               | 0                  | 0          | 0                | 0          | 0                              | 6          |
| 30-34        | 0               | 0                  | 0          | 0                | 0          | 0                              | 0          |
| 35-39        | 0               | 0                  | 0          | 0                | 0          | 0                              | 0          |
| 40-44        | 0               | 0                  | 0          | 0                | 0          | 0                              | 0          |
| 45-49        | 5               | 0                  | 0          | 0                | 0          | 0                              | 5          |
| 50-54        | 7               | 0                  | 0          | 0                | 0          | 0                              | 7          |
| 55-59        | 21              | 0                  | 0          | 0                | 0          | 0                              | 21         |
| 60-64        | 17              | 0                  | 0          | 0                | 0          | 0                              | 17         |
| 65-69        | 29              | 0                  | 0          | 0                | 0          | 0                              | 29         |
| 70-74        | 39              | 0                  | 0          | 0                | 0          | 0                              | 39         |
| 75-79        | 35              | 1                  | 0          | 0                | 0          | 0                              | 36         |
| 80-84        | 41              | 0                  | 0          | 0                | 0          | 0                              | 41         |
| 85 and Over  | 64              | 1                  | 0          | 0                | 0          | 0                              | 65         |
| <b>Total</b> | <b>264</b>      | <b>2</b>           | <b>0</b>   | <b>0</b>         | <b>0</b>   | <b>0</b>                       | <b>266</b> |

**Distribution of Retirees & Beneficiaries**     The table below illustrates a distribution of Retiree and Beneficiary benefit amounts by age and retirement type.

**Distribution of Retirees and Beneficiaries  
By Age and Retirement Type  
As of June 30, 2010**

| Type of Retirement Benefit |                     |                    |             |                  |             |                                |                     |
|----------------------------|---------------------|--------------------|-------------|------------------|-------------|--------------------------------|---------------------|
| Retiree Age                | Service Retiree     | Disability Retiree |             | Death In Service |             | Death After Service Retirement | Total               |
|                            |                     | Non-industrial     | Industrial  | Non-industrial   | Industrial  |                                |                     |
| Under 30                   | \$ 9,423            | \$ 0               | \$ 0        | \$ 0             | \$ 0        | \$ 0                           | \$ 9,423            |
| 30-34                      | 0                   | 0                  | 0           | 0                | 0           | 0                              | 0                   |
| 35-39                      | 0                   | 0                  | 0           | 0                | 0           | 0                              | 0                   |
| 40-44                      | 0                   | 0                  | 0           | 0                | 0           | 0                              | 0                   |
| 45-49                      | 79,966              | 0                  | 0           | 0                | 0           | 0                              | 79,966              |
| 50-54                      | 145,723             | 0                  | 0           | 0                | 0           | 0                              | 145,723             |
| 55-59                      | 581,369             | 0                  | 0           | 0                | 0           | 0                              | 581,369             |
| 60-64                      | 470,444             | 0                  | 0           | 0                | 0           | 0                              | 470,444             |
| 65-69                      | 649,265             | 0                  | 0           | 0                | 0           | 0                              | 649,265             |
| 70-74                      | 1,195,259           | 0                  | 0           | 0                | 0           | 0                              | 1,195,259           |
| 75-79                      | 1,047,223           | 45,753             | 0           | 0                | 0           | 0                              | 1,092,976           |
| 80-84                      | 1,511,638           | 0                  | 0           | 0                | 0           | 0                              | 1,511,638           |
| 85 and Over                | 2,000,282           | 120,008            | 0           | 0                | 0           | 0                              | 2,120,290           |
| <b>Total Benefits</b>      | <b>\$ 7,690,592</b> | <b>\$ 165,761</b>  | <b>\$ 0</b> | <b>\$ 0</b>      | <b>\$ 0</b> | <b>\$ 0</b>                    | <b>\$ 7,856,353</b> |

**Distribution of Retirees & Beneficiaries**      The table below illustrates a distribution of retiree and beneficiary counts by years retired and retirement type.

**Distribution of Retirees and Beneficiaries  
By Years Retired and Retirement Type (counts only)  
As of June 30, 2010**

Type of Retirement Benefit

| Years Retired | Service Retiree | Disability Retiree |            | Death In Service |            | Death After Service Retirement | Total      |
|---------------|-----------------|--------------------|------------|------------------|------------|--------------------------------|------------|
|               |                 | Non-industrial     | Industrial | Non-industrial   | Industrial |                                |            |
| Under 5       | 10              | 0                  | 0          | 0                | 0          | 0                              | 10         |
| 5-9           | 26              | 0                  | 0          | 0                | 0          | 0                              | 26         |
| 10-14         | 30              | 0                  | 0          | 0                | 0          | 0                              | 30         |
| 15-19         | 54              | 0                  | 0          | 0                | 0          | 0                              | 54         |
| 20-24         | 31              | 0                  | 0          | 0                | 0          | 0                              | 31         |
| 25-29         | 36              | 0                  | 0          | 0                | 0          | 0                              | 36         |
| 30 & Over     | 77              | 2                  | 0          | 0                | 0          | 0                              | 79         |
| <b>Total</b>  | <b>264</b>      | <b>2</b>           | <b>0</b>   | <b>0</b>         | <b>0</b>   | <b>0</b>                       | <b>266</b> |

**Distribution of Retirees & Beneficiaries**     The table below illustrates a distribution of retiree and beneficiary benefit amounts by years retired and retirement type.

**Distribution of Retirees and Beneficiaries  
By Years Retired and Retirement Type  
As of June 30, 2010**

| Type of Retirement Benefit |                     |                    |             |                  |             |                                |                     |
|----------------------------|---------------------|--------------------|-------------|------------------|-------------|--------------------------------|---------------------|
| Years Retired              | Service Retiree     | Disability Retiree |             | Death In Service |             | Death After Service Retirement | Total               |
|                            |                     | Non-industrial     | Industrial  | Non-industrial   | Industrial  |                                |                     |
| Under 5                    | \$ 340,512          | \$ 0               | \$ 0        | \$ 0             | \$ 0        | \$ 0                           | \$ 340,512          |
| 5-9                        | 1,213,883           | 0                  | 0           | 0                | 0           | 0                              | 1,213,883           |
| 10-14                      | 983,129             | 0                  | 0           | 0                | 0           | 0                              | 983,129             |
| 15-19                      | 1,996,991           | 0                  | 0           | 0                | 0           | 0                              | 1,996,991           |
| 20-24                      | 1,105,849           | 0                  | 0           | 0                | 0           | 0                              | 1,105,849           |
| 25-29                      | 638,572             | 0                  | 0           | 0                | 0           | 0                              | 638,572             |
| 30 & Over                  | 1,411,656           | 165,761            | 0           | 0                | 0           | 0                              | 1,577,417           |
| <b>Total Benefits</b>      | <b>\$ 7,690,592</b> | <b>\$ 165,761</b>  | <b>\$ 0</b> | <b>\$ 0</b>      | <b>\$ 0</b> | <b>\$ 0</b>                    | <b>\$ 7,856,353</b> |



# Appendices

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**Contents**

This section contains the following topics:

| <b>Topic</b>  | <b>See Page</b> |
|---|-----------------|
| Appendix A - Actuarial Assumptions and Methods      | A-1             |
| Appendix B - Summary of Principal Plan Provisions   | B-1             |
| Appendix C - GASB Statement No. 27                  | C-1             |
| Appendix D - Investment Return Sensitivity Analysis | D-1             |
| Appendix E – Glossary of Actuarial Terms            | E-1             |

## **Appendix A - Actuarial Assumptions and Methods**

|                                     |   |
|-------------------------------------|---|
| <b>Investment Return (Interest)</b> | 6.00% compounded per year, net of expenses. 7.00% compounded per year, net of expenses was used in previous valuations.   |
| <b>Individual Salary Increases</b>  | 3.25% compounded per year   |
| <b>Inflation</b>                    | 3.00% compounded per year   |
| <b>Percentage Married</b>           | 90%   |
| <b>Age of Spouse</b>                | Female spouses are assumed to be 4 years younger than male spouses.   |
| <b>Administrative Expenses</b>      | .25% of end of year assets.   |
| <b>Retirement</b>                   | Active members are assumed to retire immediately at the end of their term limit, if eligible  |
| <b>Retirement Age</b>               | The maximum retirement age was assumed to be age 60, except for participants who would not meet the service requirements at age 60 or are older than age 60. Retirement for these participants was assumed to occur at the age when the service requirements were met or when their term limits expires, whichever is later.  |
| <b>Normal Form of Payment</b>       | The normal form of payment is assumed to be a 100% Joint and Survivor Annuity for all members of the Legislature. While the normal form is a 50% Joint and Survivor Annuity for this group, it is valued as a 100% Joint and Survivor Annuity to reflect employer subsidies used in the calculation of other optional benefit forms available to the member. The normal form of payment for all Constitutional and Legislative Statutory Officers is assumed to be a straight life annuity. |

**Mortality Rates  
After Leaving  
Active  
Participation**

Post-Retirement Mortality – Sample mortality rates are shown in the following table.

| Age | Healthy Recipients |         | Disabled Recipients |         |
|-----|--------------------|---------|---------------------|---------|
|     | Male               | Female  | Male                | Female  |
| 50  | 0.00239            | 0.00125 | 0.01632             | 0.01245 |
| 55  | 0.00474            | 0.00243 | 0.01936             | 0.01580 |
| 60  | 0.00720            | 0.00431 | 0.02293             | 0.01628 |
| 65  | 0.01069            | 0.00775 | 0.03174             | 0.01969 |
| 70  | 0.01675            | 0.01244 | 0.03870             | 0.03019 |
| 75  | 0.03080            | 0.02071 | 0.06001             | 0.03915 |
| 80  | 0.05270            | 0.03749 | 0.08388             | 0.05555 |
| 85  | 0.09775            | 0.07005 | 0.14035             | 0.09577 |
| 90  | 0.16747            | 0.12404 | 0.21554             | 0.14949 |
| 95  | 0.25659            | 0.21556 | 0.31025             | 0.23055 |
| 100 | 0.34551            | 0.31876 | 0.45905             | 0.37662 |

**Probabilities  
of Decrement  
for Active  
Participants**

Vested Withdrawal – Sample vested withdrawal rates are shown in the following table.

Mortality – Sample mortality rates are shown in the following table.

Disability – Sample disability rates are shown in the following table.

Non-vested Withdrawal – Sample rates for non-vested withdrawal are shown in the following table.

For each 1,000 active participants at the age shown, the following number will leave within a year on account of:

| <b>Age</b> | <b>Vested<br/>Withdrawal</b> | <b>Disability</b> | <b>Non-Vested<br/>Withdrawal</b> | <b>Mortality<br/>Male</b> | <b>Mortality<br/>Female</b> |
|------------|------------------------------|-------------------|----------------------------------|---------------------------|-----------------------------|
| 30         | 50.0                         | 0.1               | 25.0                             | 0.5                       | 0.4                         |
| 35         | 50.0                         | 0.2               | 25.0                             | 0.7                       | 0.5                         |
| 40         | 50.0                         | 0.7               | 20.0                             | 0.9                       | 0.7                         |
| 45         | 40.0                         | 1.2               | 15.0                             | 1.2                       | 0.9                         |
| 50         | 40.0                         | 2.2               | 10.0                             | 1.8                       | 1.3                         |
| 55         | 40.0                         | 5.0               | 0.0                              | 2.6                       | 1.8                         |
| 60         | 40.0                         | 9.5               | 0.0                              | 4.0                       | 2.7                         |

For those members subject to a term limit, the Vested Withdrawal assumption is 100% at the end of the term limit.

---

|                       |   |
|-----------------------|---|
| <b>Valuation Date</b> | Liabilities are calculated as of June 30 <sup>th</sup> . Data is collected as of June 30 <sup>th</sup> , and is supplied by CalPERS' Judges' and Legislators' Office. |
|-----------------------|---|

---

|   |   |
|---|---|
| <b>Purchase of Non-Contributory Service</b> | Current active and non-retired inactive members are assumed to have purchased 100% of all non-contributory service as a member of the Legislature, as a Constitutional Officer other than a Judge, or as a Legislative Statutory Officer. Contributions made for the purchase of non-contributory service are based on their current or final compensation. |
|---|---|

---

|                          |  |
|--------------------------|--|
| <b>Method of Funding</b> | The method used in determining the required employer contribution is the "aggregate" cost method. Under the aggregate funding method, the required employer contribution is determined as the amount needed to amortize the difference between: 1) the present value of benefits and 2) the sum of the actuarial value of assets and the present value of future member contributions. Both 1 and 2 are determined as of the valuation date. |
|--------------------------|--|

---

|                                  |   |
|----------------------------------|---|
| <b>Actuarial Value of Assets</b> | In order to dampen the effect of short term market value fluctuations on employer contribution rates, the following asset smoothing technique is used. The expected actuarial value of assets is computed by bringing forward the prior year's actuarial value of assets, increased by the contributions received |
|----------------------------------|---|

and decreased by the benefits paid during the year at the assumed actuarial rate of return. The actuarial value of assets is then set equal to the expected actuarial value of assets increased by one-fifteenth of the difference between the actual market value of assets and the expected actuarial value of assets as of the valuation date. If the expected actuarial value of assets is determined to be less than 80% or greater than 120% of the market value of assets, then the actuarial value of assets will be set to either 80% or 120% of the market value of assets for valuation purposes, respectively.

---

**Internal  
Revenue Code  
Section 415**

The limitations on benefits imposed by Internal Revenue Code Section 415 were not taken into account in this valuation. The effect of these limitations has been deemed immaterial on the overall results of this valuation.

## **Appendix B - Summary of Principal Plan Provisions**

|                                     |   |
|-------------------------------------|---|
| <b>Political Reform Act of 1990</b> | Proposition 140, the Political Reform Act of 1990, required that Senators and members of the Assembly, first elected after November 7, 1990, participate in the Federal Social Security Program and in no other retirement system.  |
| <b>Name</b>                         | Legislators' Retirement System.   |
| <b>Effective Date</b>               | Effective 1947 by Chapter 879, Statutes of 1947   |
| <b>Authorization</b>                | This System is authorized by the Legislators' Retirement Law. The System was first established by Chapter 879, Statutes of 1947. The Legislators' Retirement Law is contained in Sections 9350 through 9378 of the Government Code. Section 9354 of the Code established the Legislators' Retirement Fund.  |
| <b>Administration of Plan</b>       | Administration is by the Board of Administration of the California Public Employees' Retirement System.   |
| <b>Eligibility for Membership</b>   | Members of the Legislature first elected prior to November 7, 1990, all Constitutional Officers upon electing to join the System, the Insurance Commissioner, and the Legislative Statutory Officers. Currently, these include the Chief Clerk of the Assembly, the Secretary of the Senate, the Sergeant-at-Arms of the Assembly, and the Sergeant-at-Arms of the Senate.                      |
| <b>Plan Year</b>                    | The twelve-month period ending June 30th  |
| <b>Credited Service</b>             | The period of time computed in years and/or fractions thereof as a member of the Senate or Assembly, an elective officer of the state, or statutory officer from date of electing membership in the system to termination date. For the purpose of crediting service, each full term as a Member of the Senate shall constitute four calendar years; each full term as a Member of the Assembly |

shall constitute two calendar years.

---

**Contributions  
may be made  
for Prior  
Service:**

**Members of the Legislature and Constitutional Officers** - 4% of compensation if elected before March 4, 1972 and 8% of compensation if elected after March 4, 1972. Contributions may be made at any time up to benefit commencement date, provided the individual elected to join the system while in service. No interest is charged on contributions made after the applicable service is performed.

**Legislative Statutory Officers** - 6 1/2% of compensation if elected before March 4, 1972 and 8% of compensation if elected after March 4, 1972.

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**State  
Contributions**

Per Section 9358 of the Legislators' Retirement System Law which was amended as a result of Assembly Bill 817, Chapter 897, Statutes of 1999, the State now contributes the actuarially required employer contribution rate determined by the Annual Actuarial Valuation as of June 30th.

---

**Compensation**

Compensation means remuneration paid in cash out of funds controlled by the state, excluding mileage, reimbursement for expenses incurred in the performance of official duties, and any per diem allowance paid in lieu of such expenses.

Effective December 7, 2009, elected officials salaries were reduced 18%. For the purposes of determining the present value of benefits, salaries prior to the reduction were used. Actual salaries were used to calculate employer contribution rates.

---

**Eligibility for  
an Unreduced  
Service  
Retirement  
Allowance**

A member is eligible for an unreduced service retirement allowance provided the member has satisfied all of the following requirements:

- The member has attained the age of 60 years and has completed 4 or more years of credited service or
- The member, regardless of attained age, has completed 20 or more years of credited service.
- Legislative Statutory Officers are eligible upon the attainment of age 55 years regardless of the number of years of credited service.

|   |   |
|---|---|
| <b>Amount of the Unreduced Service Retirement Allowance</b> | <p>The monthly normal retirement benefit equal to the following:</p> <p><b>Members of the Legislature</b> - 3% of the highest compensation multiplied by the years of credited service plus 2% of the first \$500 of monthly compensation multiplied by the years of credited service up to 15 years with a maximum benefit of 66 2/3% of the highest monthly compensation.</p> <p><b>Constitutional Officers</b> - 5% of the highest compensation multiplied by the years of credited service up to 8 years plus (if the member has 24 or more years of credited service) 1 2/3 % of monthly compensation multiplied by the years of credited service in excess of 8 years, not to exceed 12 years of credited service. The maximum percentage of compensation is 60% of highest monthly compensation.</p> <p><b>Legislative Statutory Officers</b> - 3% of the final compensation multiplied by the years of credited service. The allowance may not exceed 66 2/3% of the greater of the member's compensation at the time the member vacates the office or the compensation of the incumbent of that office at the time the payments of the allowance fall due.</p> |
| <b>Cost-of-Living Increases</b>                             | <p>All benefits are subject to the full cost-of-living adjustment from the benefit commencement date based on the United States city average of the Consumer Price Index for all Urban Consumers. Compensation rates are not adjusted for increases in the incumbent's compensation after the member leaves office.</p>   |
| <b>Normal Form of Service Retirement Allowance</b>          | <p>For Legislators a 50% Joint Survivor Annuity, for Constitutional Officers a Single Straight Life Annuity, and for Legislative Statutory Officers a Single Straight Life Annuity.</p>   |
| <b>Eligibility for a Reduced Early Retirement Allowance</b> | <p>A member, other than a Legislative Statutory Officer is eligible for a reduced early retirement allowance benefit provided that the member has completed 15 or more years of credited service regardless of age. Legislative Statutory Officers are not eligible for a reduced early retirement allowance.</p>   |



**Amount of  
Reduced Early  
Retirement  
Allowance**

The monthly reduced early retirement is the unreduced service retirement allowance reduced 2% for each year by which the member's age at the time of retirement is below age 60. Reduction Factors are shown for ages 50 to 59 in the table below.

| <b>Age at Retirement</b> | <b>% of Service Retirement Benefit Paid</b> | <b>Age at Retirement</b> | <b>% of Service Retirement Benefit Paid</b> |
|--------------------------|---|--------------------------|---|
| 59                       | .98   | 54                       | .88   |
| 58                       | .96   | 53                       | .86   |
| 57                       | .94   | 52                       | .84   |
| 56                       | .92   | 51                       | .82   |
| 55                       | .90   | 50                       | .80   |

**Forms of  
Retirement  
Allowance  
Payments:**

- Optional Settlement 1. Single Life Annuity, with the payment of the balance of the member's contributions at the death of the member to the member's beneficiary.
- Optional Settlement 2. 100% Joint and Survivor Annuity.
- Optional Settlement 3. 50% Joint and Survivor Annuity.
- Optional Settlement 4. Subject to the approval of the Board of Administration, a member may select other benefits that are the actuarial equivalent of his/her retirement allowance.
- Members of the Legislature. The member's retirement allowance is unreduced due to the selection of any of the above optional settlements.

**Eligibility for a  
Disability  
Allowance**

All members are eligible and there are no minimum age or service requirements. A medical examination may be required if the applicant is below the minimum age for Service or Early Retirement.

**Amount of  
Disability  
Allowance**

The disability allowance is the same as the service retirement allowance that would be payable to the member if the member had retired for reasons other than disability.

**Eligibility for  
Pre-Retirement  
Death  
Allowance**

All members are eligible for a Pre-Retirement Death Allowance.

**Amount of Pre-  
Retirement  
Death  
Allowance:**

**Prior to eligibility for Service or Early Retirement** - Refund of the member's contributions with interest plus one-twelfth of the member's annual compensation during the last 12 months in office immediately preceding the member's death multiplied by the member's years of credited service.

**Subsequent to eligibility for Service or Early Retirement** - If the member had elected an optional settlement before death, the surviving spouse will receive the same benefit the surviving spouse would have received had the member's retirement preceded death. If the member had not elected an optional settlement, then the surviving spouse would receive the same benefits had the member elected Optional Settlement 2, a 100% Joint and Survivor Annuity, retired and then died.

**Eligibility for  
Special  
Survivor  
Allowance**

The surviving spouse who has the care of unmarried children under the age of 18 or unmarried incapacitated children if over the age of 18 or if there is not a spouse with these responsibilities, the guardian who has the care of unmarried children under the age of 18 or unmarried incapacitated children if over the age of 18. In the case where there are no incapacitated children, but a surviving spouse, a deferment age of 62 is required before receiving a benefit. In the case where there is not a surviving spouse or guardian, the dependent parents of the member are eligible and shall be paid the Survivor's Allowance once the age of 62 is attained. This allowance is payable only if the member is not covered by Social Security.

**Amount of  
Special  
Survivor  
Allowance**

| Survivor                                  | Monthly Allowance |
|---|-------------------|
| Spouse or One Child                       | \$ 180            |
| Spouse and One Child or Two Children      | \$ 360            |
| Spouse and Two Children or Three Children | \$ 430            |

Benefit payments under this provision are reduced by any other survivor benefits under any other provision under this system.

**In-Service  
Death  
Allowance**

In addition to any benefits paid, the beneficiary of a member who died while in office or employed as a Legislative or Statutory Officer will receive an allowance equal to the member's compensation during the 12 months immediately preceding the member's death.

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**Post  
Retirement  
Death Benefit**

Upon the death of a retiree, a one-time lump sum payment of \$600 will be made to the retiree's designated survivor(s), or to the retiree's estate.

---

## **Appendix C – GASB Statement No. 27**

**GASB 27** Under GASB 27, an employer reports an annual pension cost (APC) equal to the annual required contribution (ARC) plus an adjustment for the cumulative difference between the APC and the employer's actual plan contributions for the year. The cumulative difference is called the net pension obligation (NPO). The ARC for the period July 1, 2011 to June 30, 2012 has been determined by an actuarial valuation of the plan as of June 30, 2010. The contribution rate for the indicated period is 0% of payroll. In order to calculate the dollar value of the ARC for inclusion in financial statements prepared as of June 30, 2012, this contribution rate, as modified by any amendments for the year, would be multiplied by the payroll of covered employees that was actually paid during the period July 1, 2011 to June 30, 2012. The employer and the employer's auditor are responsible for determining the NPO and the APC.

---

**Retirement  
Program  
Assumptions**

A summary of principal assumptions and methods used to determine the ARC is shown below.

More complete information on assumptions and methods is provided in Appendix A of this report. Appendix B contains a description of benefits included in the valuation.

|                                |  |
|--------------------------------|--|
| Valuation Date                 | June 30, 2010                          |
| Actuarial Cost Method          | Aggregate Cost Method                  |
| Amortization Method            | Level Percent of Payroll               |
| Average Remaining Period Asset | 31 Years as of the Valuation Date      |
| Valuation Method               | 15 Year Smoothed Market                |
| Actuarial Assumptions          |  |
| Investment Rate of Return      | 6.00% (net of administrative expenses) |
| Projected Salary Increases     | 3.25%                                  |
| Inflation                      | 3.00%                                  |
| Payroll Growth                 | 3.25%                                  |
| Individual Salary Growth       | 3.25%                                  |

---

**Schedule of  
Funding  
Progress**

The Schedule of Funding Progress below shows the recent history of the actuarial value of assets, entry age normal actuarial accrued liability, their relationship, and the relationship of the unfunded actuarial accrued liability to payroll.

| <b>Valuation Date</b> | <b>Entry Age Normal Accrued Liability (a)</b> | <b>Actuarial Value of Assets (b)</b> | <b>Unfunded Liability (UL) (a)-(b)</b> | <b>Funded Status (b)/(a)</b> | <b>Annual Covered Payroll (c)</b> | <b>UL As a % of Payroll [(a)-(b)]/(c)</b> |
|-----------------------|---|--------------------------------------|--|------------------------------|-----------------------------------|---|
| 06/30/10              | \$ 112,355,875                                | \$ 126,641,553                       | \$ (14,285,678)                        | 112.7%                       | \$ 2,159,181                      | (661.6%)                                  |
| 06/30/09              | \$ 111,898,151                                | \$ 134,195,015                       | \$ (22,296,864)                        | 119.9%                       | \$ 2,057,335                      | (1083.8%)                                 |
| 06/30/08              | \$ 103,035,982                                | \$ 142,350,628                       | \$ (39,314,646)                        | 138.2%                       | \$ 2,216,469                      | (1773.8%)                                 |

## **Appendix D – Investment Return Sensitivity Analysis**

The investment return realized during a fiscal year first affects the contribution rate for the fiscal year 1 year later. Specifically, the investment return for 2010-2011 will first be reflected in the June 30, 2011 actuarial valuation that will be used to set the 2012-2013 employer contribution rates.

As of February 28, 2011, the investment return for fiscal year 2010-2011 was announced to be 13.8%. Note that this return is before administrative expenses. The preliminary 13.8% return for the 2010-2011 fiscal year is good news as it would help reduce the impact of the -10% return in 2008-2009. For purposes of projecting future employer rates, we are assuming a 13.8% investment return for fiscal year 2010-2011.

Based on a 13.8% investment return for fiscal year 2010-2011 and assuming that all other actuarial assumptions will be realized and that no further changes to assumptions, contributions, benefits, or funding will occur between now and the beginning of the fiscal year 2012-2013, the effect on the 2012-2013 Employer Rate is as follows:

| <b>Estimated 2012-2013 Employer Rate</b> | <b>Estimated Increase in Employer Rate<br/>between 2011-2012 and 2012-2013</b> |
|--|--|
| 0.0%                                     | 0.0%   |

As part of this report, a sensitivity analysis was performed to determine the effects of various investment returns during fiscal year 2010-2011 on the 2012-2013 employer rates. Once again, the projected 2012-2013 rate increases assume that all other actuarial assumptions will be realized and that no further changes to assumptions, contributions, benefits, or funding will occur between now and the beginning of fiscal year 2012-2013.

Five different 2010-2011 investment return scenarios were selected.

The first scenario is what one would expect if the markets were to give us a 5th percentile return. The 5th percentile return corresponds to a -6% return for the 2010-2011 fiscal year.

The second scenario is what one would expect if the markets were to give us a 25th percentile return. The 25th percentile return corresponds to a 1% return for the 2010-2011 fiscal year.

The third scenario assumed the return for 2010-2011 would be our assumed 6.00% investment return which represents about a 49th percentile event.

The fourth scenario is what one would expect if the markets were to give us a 75th percentile return. The 75th percentile return corresponds to an 11% return for the 2010-2011 fiscal year.

Finally, the last scenario is what one would expect if the markets were to give us a 95th percentile return. The 95th percentile return corresponds to an 18% return for the 2010-2011 fiscal year.

The table below shows the estimated 2012-2013 contribution rate and the estimated increase over the 2011-2012 rate for your plan under the five different scenarios.

| <b>2010-2011 Investment<br/>Return Scenario</b> | <b>Estimated 2012-2013<br/>Employer Rate</b> | <b>Estimated Increase in Employer<br/>Rate between 2011-2012 and 2012-<br/>2013</b> |
|---|--|---|
| -6%   | 0%   | 0%  |
| 1%  | 0%   | 0%  |
| 6%  | 0%   | 0%  |
| 11%   | 0%   | 0%  |
| 18%   | 0%   | 0%  |

## **Appendix E – Glossary of Actuarial Terms**

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|--------------------------|---|
| <b>Accrued Liability</b> | The total dollars needed as of the valuation date to fund all benefits earned in the past for <i>current</i> members. |
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| <b>Actuarial Assumptions</b> | Assumptions made about certain events that will affect pension costs. Assumptions generally can be broken down into two categories: demographic and economic. Demographic assumptions include such things as mortality, disability and retirement rates. Economic assumptions include investment return, salary growth and inflation. |
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| <b>Actuarial Methods</b> | Procedures employed by actuaries to achieve certain goals of a pension plan. These may include things such as funding method, setting the length of time to fund the past service liability and determining the actuarial value of assets. |
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| <b>Actuarial Valuation</b> | The determination, as of a valuation date of the normal cost, actuarial accrued liability, actuarial value of assets and related actuarial present values for a pension plan. These valuations are performed annually or when an employer is contemplating a change to their plan provisions. |
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| <b>Actuarial Value of Assets</b> | <p>The actuarial value of assets used for funding purposes is obtained through an asset smoothing technique where investment gains and losses are partially recognized in the year they are incurred, with the remainder recognized in subsequent years.</p> <p>This method helps to dampen large fluctuations in the employer contribution rate.</p> |
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| <b>Aggregate Funding Method</b> | Under the aggregate funding method, the required employer contribution is determined as the amount needed to amortize the difference between: 1) the present value of benefits and 2) the sum of the actuarial value of assets and the present value of future member contributions. Both 1 and 2 are determined as of the valuation date. |
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**Amortization Bases**      Separate payment schedules for different portions of the unfunded liability. The total unfunded liability (or side fund) can be segregated by "cause", creating "bases" and each such base will be separately amortized and paid for over a specific period of time. This can be likened to a home mortgage that has 24 years of remaining payments and a second on that mortgage that has 10 years left. Each base or each mortgage note has its own terms (payment period, principal, etc.)

Generally in an actuarial valuation, the separate bases consist of changes in liability (principal) due to amendments, actuarial assumption changes, or methodology changes and gains and losses. Payment periods are determined by Board policy and vary based on the cause of the change.

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**Amortization Period**      The number of years required to pay off an amortization base.

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**Annual Required Contributions (ARC)**      The employer's periodic required annual contributions to a defined benefit pension plan, calculated in accordance with the plan assumptions. The ARC is determined by multiplying the employer contribution rate by the payroll reported to CalPERS for the applicable fiscal year. However, if this contribution is fully prepaid in a lump sum, then the dollar value of the ARC is equal to the Lump Sum Prepayment.

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**Entry Age**      The earliest age at which a plan member begins to accrue benefits under a defined benefit pension Plan or risk pool. In most cases, this is the same as the date of hire.

(The assumed retirement age less the entry age is the amount of time required to fund a member's total benefit. Generally, the older a member is at hire, the greater the entry age normal cost. This is mainly because there is less time to earn investment income to fund the future benefits.)

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| <b>Excess Assets</b>                | When a plan or pool's actuarial value of assets is greater than its accrued liability, the difference is the plan or pool's excess assets. A plan with excess assets is said to be overfunded. The result is that the plan or pool can temporarily reduce future contributions.  |
| <b>Entry Age Normal Cost Method</b> | An actuarial cost method designed to fund a member's total plan benefit over the course of his or her career. This method is designed to produce stable employer contributions in amounts that increase at the same rate as the employer's payroll (i.e. level % of payroll).  |
| <b>Fresh Start</b>                  | When multiple amortization bases are collapsed into one base and amortized over a new funding period. At CalPERS, fresh starts are used to avoid inconsistencies that would otherwise occur.   |
| <b>Funded Status</b>                | A measure of how well funded a plan or risk pool is. Or equivalently, how "on track" a plan or risk pool is with respect to assets vs. accrued liabilities. We calculate a funded ratio by dividing the actuarial value of assets by the accrued liabilities. A ratio greater than 100% means the plan or risk pool has more assets than liabilities and a ratio less than 100% means liabilities are greater than assets. |
| <b>Normal Cost</b>                  | The annual cost of service accrual for the upcoming fiscal year for active employees. The normal cost plus surcharges should be viewed as the long term contribution rate.   |
| <b>Pension Actuary</b>              | A person who is responsible for the calculations necessary to properly fund a pension plan.  |
| <b>Prepayment Contribution</b>      | A payment made by the employer to reduce or eliminate the year's required employer contribution.   |

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| <b>Present Value of Benefits</b> | The total dollars needed as of the valuation date to fund all benefits earned in the past or expected to be earned in the future for current members. |
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| <b>Rolling Amortization Period</b> | An amortization period that remains the same each year or does not decline. |
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| <b>Superfunded</b> | A condition existing when the actuarial value of assets exceeds the present value of benefits. When this condition exists on a given valuation date for a given plan, employee contributions for the rate year covered by that valuation may be waived. |
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| <b>Unfunded Liability</b> | When a plan or pool's actuarial value of assets is less than its accrued liability, the difference is the plan or pool's unfunded liability. The plan or pool will have to temporarily increase contributions. |
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